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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,308	10/12/1999	PRADEEP K. KATHAIL	CISCO-1321	5986

7590

09/10/2003

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EXAMINER

PHAM, HUNG Q

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 09/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/416,308

Applicant(s)

KATHAIL ET AL. 

Examiner

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003 and 07 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/26/2003 and 08/07/2003 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19 and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As in claims 19 and 27, the step of *storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request wherein said identification identifies said one of said plurality of subsystems as a subsystem to*

notify in response to a change in said configuration data for said object in said record was not described in the specification.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 19-20, 25, 27-28 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Traversat et al. [USP 6,115,715].**

Regarding to claim 19 and 27, Traversat teaches a method and product for updating and managing a configuration database used to store configuration and user

data in a computer network having multiple clients, such as network computers (Abstract). The Java System Configuration Database or JSD is a single subsystem that includes at least two major sub-components: the client schema, the server schema (Col. 3, lines 47-57), also the lock API and management features (Col. 7, lines 20-23). As shown in Figs. 2-3 is the structure of client and server schema with a plurality of entries. In order to *maintain the configuration database* a transaction mechanism is used to determine whether a new node is being added to or an existing node is being modified by the transaction (Col. 2, lines 18-32). A transaction management system has a transaction API as a container or a transaction management object that manipulates any type of abstract entry. An entry, i.e., a particular operation, can be placed into this transaction API or container. The transaction API is a way for an application to have a transaction performed and has two components: a lock API and an event queue (Col. 6, lines 37-61). As shown in Fig. 4, an entry object 406 is placed in Base Entry class 402 for a transaction to take place. The lock API is a two-phase locking process. In the first phase an entry is locked and in the second phase an update is performed (Col. 6, line 62-Col. 7, line 30). When a printer is first attached to the client, the client makes an inquiry to the server JSD, informing the server JSD that there is a new hardware component, and providing information on the printer (Col. 7, line 52-Col. 8, line 2). As shown in Fig. 5 at step 502, the transaction, such as adding a new printer to a client, will attempt to lock the appropriate node in a sub-tree of the client schema. The transaction will get a lock on the desired node after the current transaction is done, the current transaction will send an event notification to an event manager that will inform all waiting

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threads waiting to get a lock on the sub-tree or individual entry that one of them can now proceed (Col. 8, lines 3-24). As seen, the JSD *receives a lock API transaction as notification request sent from* the transaction management system as *one of a plurality of subsystems, wherein notification request is a request to receive notification of changes to configuration data of a printer as an object in said network identified in said notification request* by an entry object, *and wherein each of said plurality of subsystems is instructions executed by said processing unit to provide an application of an internetwork operating system*. Traversat further discloses *a media readable by said processing unit that stores said instructions* (Col. 16, lines 11-41). Traversat does not explicitly teach the step of *storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request wherein said identification identifies said one of said plurality of subsystem as a subsystem to notify in response to a change in said configuration data for said object in said record* and fails to teach the JSD is implemented in *a router device*. However, as shown in Fig. 5, once a lock on a desired entry is obtained at step 502, a transaction handle is created for the transaction at step 506. This handle object is a unique identifier for the specific transaction that caused the lock. (Col. 8, lines 42-46). At step 508, the transaction performs the actual update (Col. 8, lines 62-64). At step 510 the update making up the single transaction performed at step 508 are committed and the transaction completed at step 512 (Col. 9, lines 7-9 and lines 40-41). The locks acquired at step 502 are released by examining the transaction handle for each lock. Only those locks that have the correct transaction handle are released (Col.

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9, lines 9-14). A table of records, where each record represents a specific lock can be used to match locks with a specific transaction (Col. 9, lines 7-18). If there is a failure and an update is not successful for any reason, control goes to step 514 where the transaction is aborted (Col. 9, lines 42-47). Once the locks are released, a notice that the transaction has been committed is broadcast to all threads waiting on the nodes that were locked (Col. 9, lines 18-23), and the transaction handle is used to identify those updates that were to be committed (Col. 10, lines 52-54). As seen, each record in the table of record represents a lock that stores a transaction handle or identifier to identify a transaction. The transaction handle is used to identify those transactions for broadcasting to all threads waiting a notice that were to be committed or aborted. In other words, the technique as discussed performs the step of *storing an identification of said one of said plurality of subsystems that transmitted said notification request in a record in said database that stores said configuration data for said object identified in said notification request wherein said identification identifies said one of said plurality of subsystem as a subsystem to notify in response to a change in said configuration data for said object in said record*. As taught by Traversat, the system database can operate on other types of platforms. Thus, *a router device* could be used for operating the system database. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat method and product by implementing the technique of notifying configuration data in a router device and including the step of storing an identification of a transaction in a record, and by the modification,

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configuration data of a router could be updated and handled in the most efficient manner.

Regarding to claims 20 and 28, Traversat teaches all the claimed subject matters as discussed in claims 19 and 27, Traversat further discloses: *receive a change in said configuration data of said object; reading said identification of said one of said plurality of subsystems from said record of said object receiving to receiving said change of said configuration data, and transmitting a notification of said change of configuration data of said object to said one of said plurality of subsystems responsive to said reading of said identification* (Col. 7, line 52-Col. 10, line 31).

Regarding to claims 25 and 33, Traversat teaches all the claimed subject matters as discussed in claims 19 and 27, Traversat further discloses the step of *receiving a remove notification request from said one of said plurality of subsystems, wherein said remove notification request is a request to remove said one of said plurality of subsystems from said plurality of subsystems to be notified in response to a change in said configuration data, and removing said identification of said one of said plurality of subsystems from said record of said configuration data storing subsystems to be notified of a change in said configuration data* (Col. 8, line 60-Col. 9, line 58).

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5. **Claims 21-24, 26, 29-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Traversat et al. [USP 6,115,715] in view of Tabuchi [USP 6,446,093].**

Regarding to claims 21 and 29, Traversat teaches all the claimed subject matters as discussed in claims 19 and 27, Traversat further discloses the step of *retrieving a record storing said configuration data for said object responsive to receiving said notification request* (Traversat, Col. 8, lines 3-24), but fails to teach the step of *setting a notification flag in said record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of setting a notification flag in a record (Tabuchi, Col. 6, lines 15-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product and method by including the technique of setting a notification flag as taught by Tabuchi, and by doing this, a record could be controlled and managed via access right.

Regarding to claims 22 and 30, Traversat and Tabuchi teaches all the claimed subject matters as discussed in claims 21 and 29, Traversat further discloses the step of *receiving a change to said configuration data of said object retrieving said record of said object* (Traversat, Col. 8, line 60-Col. 9, line 5), but fails to teach the step of *reading said notification flag*. Tabuchi teaches a distributed system comprising a document server

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and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of reading notification flag (Tabuchi, Col. 26, lines 27-28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product by including the step of reading notification flag, and by including the step of reading, a record could be controlled and managed for modifying via access right.

Regarding to claims 23 and 31, Traversat and Tabuchi teaches all the claimed subject matters as discussed in claims 21 and 29, Traversat further discloses the step of *determining said notification request is configuration data of a name space, retrieving each child record of said record* (Traversat, Col. 8, lines 3-24), but fails to teach the step of *setting a notification flag in each said child record*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of setting a notification flag in a record (Tabuchi, Col. 6, lines 15-54). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product and method by including the technique of setting a notification flag in a child record as taught by Tabuchi, and by doing this, a child record could be controlled and managed via access right.

Regarding to claims 24 and 32, Traversat and Tabuchi teaches all the claimed subject matters as discussed in claims 23 and 31, Traversat further discloses the step of *receiving a change to configuration in a child record, retrieving said child record responsive to receiving said change, and transmitting notification of said change of said change to said one of said plurality of subsystems identified in said parent record* (Traversat, Col. 8, line 60-Col. 9, line 58), but fails to teach the step of *reading said notification flag in said child record responsive to retrieving said record, reading a parent record of said child responsive to reading said notification flag*. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of reading notification flag (Tabuchi, Col. 26, lines 27-28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat product by including the step of reading notification flag in child also parent record, and by including the step of reading, a record could be controlled and managed for modifying via access right.

Regarding to claims 26 and 34, Traversat teaches all the claimed subject matters as discussed in claims 25 and 33, Traversat fails to disclose the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from*

each said child record. Tabuchi teaches a distributed system comprising a document server and a plurality of clients, which are connected to the document server via a network and a method of managing a document shared in the distributed system (Tabuchi, Col. 1, lines 5-10). Tabuchi further discloses the step of *determining whether said configuration data for which said remove notification request is for a name space, retrieving each child record of said record of said configuration data responsive to a determination said configuration data is a name space, and removing a notification flag, from each said child record* (Tabuchi, Col. 6, line 15-Col. 9, line 28). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the Traversat method by including the step of removing notification flag from the child record after retrieving the child record, and by including the step of removing and retrieving, a record could be controlled and managed for modifying via access right.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday through Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM Y VU can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Hung Pham
August 31, 2003


SHAHID ALAM
PRIMARY EXAMINER